

The opinion in support of the decision being entered today was *not* written  
for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

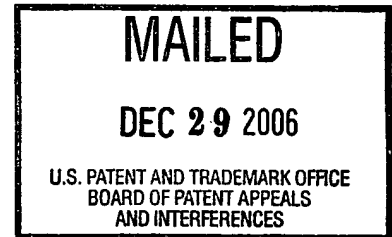
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*Ex parte* PETER THURMANN, HANS IHRlich, ARNOLD SCHILZ, HANS  
JURGEN HOFMANN, INES KISTENBRUGGER, and MICHAEL AUER

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Appeal No. 2006-2839  
Application No. 10/699,229  
Technology Center 3600

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ON BRIEF

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Before FRANKFORT, OWENS, and LEVY, *Administrative Patent Judges*.  
LEVY, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1, 3-7 and 13. Claim 2 has been cancelled. Claims 8-12 have been indicated as allowable, and claims 14-21 have been allowed (brief, page 2).

We REVERSE.

## BACKGROUND

The appellants' invention relates to a piston-cylinder unit (specification, page 1).

Claim 1 is representative of the invention, and is reproduced as follows:

A piston-cylinder unit comprising:

a cylindrical pressure tube having an end with an end face surrounding a central opening, said cylindrical pressure tube being formed at said end to form an end wall, said end face facing radially inward to define said central opening;

a piston rod extending through said central opening and forming a ring-shaped gap between said piston rod and said end face; and

a heat-shrink sleeve surrounding said pressure tube and extending axially into said ring-shaped gap, enclosing said end face.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Freitag et al. (Freitag)	4,281,884	August 4, 1981
Kaufmann et al. (Kaufmann)	5,791,445	August 11, 1998

Claims 1, 3-7 and 13<sup>1</sup> stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Freitag in view of Kaufmann.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the above-noted rejection, we make reference to the answer (mailed March 2, 2006) for the examiner's complete reasoning in support of

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<sup>1</sup> The examiner additionally lists claim 2. However, we find this to be a typographical error as claim 2 has been cancelled; see page two of the Final Office action mailed January 6, 2005.

the rejection, and to the brief (filed July 11, 2005) and reply brief (filed April 14, 2006) for the appellants' arguments there against.

Only those arguments actually made by appellants have been considered in this decision. Arguments which appellants could have made but chose not to make in the brief have not been considered. *See* 37 C.F.R. § 41.37(c)(1)(vii)(eff. Sept. 13, 2004).

### OPINION

In reaching our decision in this appeal, we have carefully considered the subject matter on appeal, the rejection advanced by the examiner, and the evidence of obviousness relied upon by the examiner as support for the rejection. We have, likewise, reviewed and taken into consideration, in reaching our decision, appellants' arguments set forth in the briefs along with the examiner's rationale in support of the rejection and arguments in rebuttal set forth in the examiner's answer. Upon consideration of the record before us, we make the determinations which follow<sup>2</sup>.

We note at the outset that appellants' arguments are directed to claim 1. Accordingly, we select claim 1, the sole independent claim before us for decision on appeal, as representative of the group. Turning to claim 1, we note as background that in rejecting claims under 35 U.S.C. § 103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. *See In re Fine*, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is expected to make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 USPQ

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<sup>2</sup> From our review of the record, we find no indication that the IDS filed on March 9, 2006 has been considered by the examiner. The examiner should consider this matter upon return of the application to the Technology Center.

459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir. 1988); *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985); *ACS Hosp. Sys., Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. *Note In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). If that burden is met, the burden then shifts to the applicant to overcome the prima facie case with argument and/or evidence. Obviousness is then determined on the basis of the evidence as a whole. *See id.*; *In re Hedges*, 783 F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir. 1986); *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984); and *In re Rinehart*, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976).

The examiner's position (answer, page 3) is that Freitag lacks showing the sleeve 10 "enclosing" the end face (in the area of element 4) and extending into the gap. To overcome this deficiency of Freitag, the examiner turns to Kaufmann for a teaching of extending the sleeve of Freitag into the gap to further seal the rod from the environment or act as a wiper for the rod to remove debris. The examiner adds that the elements 10 and 36 could be made integral as fairly suggested by Kaufmann.

Appellants' position (brief, page 5) is that in Freitag, insulating coat 10 terminates in a plane common with the end face of the cylindrical member such that the insulating coat does not extend into the gap. It is argued that in Freitag, shield 36 is not formed unitarily with the insulating coating 10, and that there is no suggestion of extending heat-shrink sleeve 10 so that it extends axially into the ring-shaped gap between the end face of cylinder 1 and the piston rod 2 to enclose the end face of the cylinder member. With respect to Kaufmann, it is asserted (brief, page 6) that cylindrical segment 24 of shrink-wrap sleeve 22 wraps around an axial portion of piston rod 14 outside a closed end 16 of cylinder 12. It is argued (brief, page 7) that providing Freitag with the cylindrical segment 24 of Kaufmann "cannot render the structure as recited in claim 1 unpatentable." It is further argued that Freitag is concerned with electro-conductive parts that are not typically exposed to moisture, and that the examiner has not shown motivation to combine Freitag and Kaufmann. With regard to the examiner's assertion that Kaufmann fairly suggests making integral the insulating coat 10 and insulating sleeve 36 of Freitag, appellants argue (brief, page 8) that

Since Freiteg et al. teaches that the electrically insulating sleeve 36 is displaceable with the piston member, fixing the sleeve 36 to the coating 10, which is stationary, to the displaceable sleeve would lead to (a) preventing the sleeve from traveling, or (b) tearing the sleeve 36 apart from the rest of the coating 10 during the expanded of the piston rod.

In the reply brief, appellants add (page 2) that in Kaufmann, the portion 24 of sleeve 22 extends axially outwards from the cylinder's end face and thus, does

not enclose the latter. It is further argued (*id.*) that since sleeve portion 24 is not a seal, moisture accumulated on piston 14 may enter the gap between sleeve portion 24 and piston 14 and penetrate into a space between sleeve 22 and cylinder 12. Appellants add (*id.*) that neither reference teaches an end portion of a heat-shrink sleeve that extends axially inwards from the cylinder's end.

From our review we find, for the reasons which follow, that the combined teachings of Freitag and Kaufmann would not have suggested to an artisan the invention recited in claim 1. At the outset, we note that because Freitag's pneumatic spring is designed for use in the automotive industry, specifically for motor hoods, trunk lids and the rear gate of a station wagon (col. 3, lines 59-62), we find that the pneumatic spring is for use in an environment exposed to moisture. In addition, we do not agree with appellants' assertion (reply brief, page 2) that sleeve portion 24 of Kaufmann is not a seal. We find from the disclosure of Kaufmann (col. 2, lines 46-48) that "the shrink-wrap sleeve has a cylindrical segment 24 that wraps around an axial portion of the piston rod 14, forming a seal which effectively prevents moisture or other contaminants from penetrating along the rod to the cylinder 12" [emphasis added].

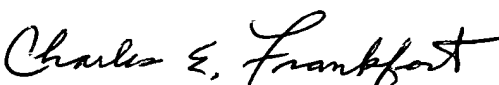
However, even though Kaufmann discloses cylindrical segment 24 that wraps around an axial portion of the piston rod to form a seal, the claim requires more. Claim 1 requires that the pressure tube has an end with an end face surrounding a central opening. The pressure tube being shaped at said end to form an end wall. The end face facing radially inward to define the central opening. The piston rod extends through the central opening to form a ring-shaped gap between the piston rod and the end face. The claim additionally requires that a

heat-shrink sleeve surrounding the pressure tube extends axially into said ring-shaped gap, enclosing the end face. We find from this language that the ring-shaped gap extends between the end face and the piston rod. In Freitag, the insulating coat 10 does not extend into the ring-shaped gap. Insulating shield 36 is distinct from the insulating coat 10. In Kaufmann, cylindrical segment 24 extends across the gap between the piston-cylinder assembly 10 and the piston 14. However, when the cylindrical segment 24 reaches the piston rod 14, it turns outwardly and extends in an axial direction away from the end of the piston-cylinder. Claim 1 requires the heat-shrink sleeve to extend axially into the gap to enclose the end face. In Kaufmann, the heat-shrink sleeve does not extend axially into the gap, and does not enclose the end face of the pressure tube (piston-cylinder). Thus, whether we combine the insulating coat 10 and the insulating shield 36 or whether we provide Freitag with an extending cylindrical segment 24 in view of the disclosure of Kauffmann, we would not arrive at the claimed invention because the resultant sleeve would not extend axially into the ring-shaped gap, and would not enclose the end face. Thus, we need not address the issue of whether the teachings of Freitag and Kaufmann would have been combined by an artisan because the combined teachings and suggestions of the references would not have resulted in the claimed invention. Accordingly, we find from all of the above that the examiner has failed to establish a prima facie case of obviousness of claim 1. We therefore cannot sustain the rejection of claim 1, or claims 3-7 and 13, which depend therefrom.

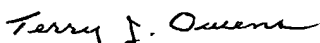
CONCLUSION

To summarize, the decision of the examiner to reject claims 1, 3-7 and 13 under 35 U.S.C. § 103 is reversed. No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

REVERSED



CHARLES E. FRANKFORT  
Administrative Patent Judge



TERRY J. OWENS  
Administrative Patent Judge



STUART S. LEVY  
Administrative Patent Judge

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